## Contents

This listing presents the papers in alphabetical order of the first author, subdivided according to the groupings "Solids and Materials" and "Surfaces, Interfaces, and Layer Structures". The author index that follows covers APPLIED PHYSICS A and B. and is presented in tabular form. The names are listed in alphabetical order in the first column. The second column gives the first author of the respective paper, and the third column the bibliographic data necessary to locate the paper. The issue is specified by the number separated from the volume number by a slash. The fourth column states the major PACS number so that the topic of the paper can be inferred by consulting the PACS listing on the left page.

## **SOLIDS and MATERIALS**

Abraham E., Halley J.M.: ome calculations of temperature profiles in thin films with laser heating. Appl. Phys. A 42/4, 279-285 (1987) PACS:61.80 44.90

Abraham E., Ogilvy I.J.M.:

Abraham E., Ogilvy I.J.M.:
Heat flow in interference filters.
Appl.Phys.B 42/1, 31-34 (1987) PACS:44.90
Beling C.D., Simpson R.I. Charlton M., Jacobson F.M.,
Griffith T.C., Moriarty P., Fung S.:
A field-assisted moderator for low-energy positron beams.
Appl.Phys. A 42/2, 111-116 (1987) PACS:78.80 72.90 79.90
Brauer G., Galogh A.G., Jahn L.:
Positron annihilation study of ordering processes in rare-

earth cobalt permanent magnets.
Appl.Phys.A 42/4, 287-289 (1987) PACS:75.00 78.70
Chakrabarti P., Pal B.B.:

Effect of optical radiation in a photo-DOVATT.
Appl.Phys.A 42/4, 311-315 (1987) PACS:70.20 72.40 85.60 en C.S., Schroder D.K.:

Vibrational modes and infrared absorption of interstitial oxygen in silicon. Appl. Phys. A 42/4, 257-262 (1987) PACS: 61.70 71.55 78.50

Conzelmann H.:

Photoluminescence of transition metal complexes in silicon. Appl.Phys.A 42/1, 1-18 (1987) PACS:71.55 78.55 71.35 Dlubek G., Krause R., Brümmer O., Tittes J.: Positron-lifetime study of vacancy annealing in neutron-

irradiated GaAs.
Appl.Phys.A 42/2, 125-127 (1987) PACS:61.80 78.70
Duschl-Maass M., Maass W., Hoffmann H., Friedlaender F.J.:

Particle accumulation on a single wire in transverse HGMS configuration. Appl.Phys.A 42/2, 117-124 (1987) PACS:85.70 41.00

Evans E.B., McCormick M.A., Kennedy S.L., Erb U.: The effect of inclusion size on grain boundary wetting in Al-Sn allovs

Al-Sn alloys.
Appl.Phys.A 42/4, 269-272 (1987) PACS:61.70N 61.25
Garcia J.A., Remon A., Piqueras J.:
Photoluminescence from electron irradiated ZnO.
Appl.Phys.A 42/4, 297-299 (1987) PACS:61.70B 61.80 78.55
Harith M.A., Zhang J.P., Campisano S.U.:
Kinetics of Ni2Si growth from pure Ni and Ni(V) films on (111)

and (100) Si. Appl. Phys. A 42/1, 35-39 (1987) PACS: 61.10 68.55 81.10

Junevicius D., Reklaitis A.: Instability of photoexcited electron-hole plasma in short se-miconductor structures.

Appl. Phys. A 42/1, 41-43 (1987) PACS: 72.20 85.30

Kaloyeros A., Williams W.S.: Application of molecular (static) secondary ion mass spectroscopy to detection of organic melecules in amorphous titanium Appl. Phys. A 42/2, 139-143 (1987) PACS: 82.80 82.65 81.10

Katsumata T., Okada H., Kikuta T., Fukuda T.: Optical properties and origin of infrared light scattering

centers in undoped semi-insulating GaAs crystals. Appl.Phys.A 42/2, 103-109 (1987) PACS:61.70 78.90 72.80

Nonexponential dark capacitance transients from red-emitting GaP LEDs - field and edge effects on the 0.75 eV centre. Appl.Phys.A 42/4, 301-302 (1987) PACS:71.55 85.60 85.30 Khan R.U., Chakrabarti P., Pal B.B.:
MITATT mode in DDR heterostructure impatt.
Appl.Phys.A 42/4, 303-309 (1987) PACS:72.20 79.20 85.30

Koren G., Oppenheim U.P.:

Laser ablation of polymers in pressurized gas ambients. Appl.Phys.B 42/1, 41-43 (1987) PACS:81.60J 47.40 82.65 Kubiak R.A.A., Newstead S.M., Leong W.Y., Houghton R., Parker E.H.C., Whall T.E.:

rarker t.M.G., Whalf T.E.:

The electric properties of doped silicon, grown by molecular-beam-epitaxy (MBE)

Appl.Phys.A 42/3, 197-200 (1987) PACS:72.20 73.60

Lappalainen R., Anttila A.:

Annealing behaviour of implanted nitrogen in bulk and evaporated Ni.

Appl.Phys.A 42/4, 263-267 (1987) PACS:66.30J 61.70 Mahmud Y.A., Wishah K.A., Abdul-Gader M.M., Abdallah M.A.-H., Ahmad-Bitar R.N.:

Temperature dependence of dielectric behaviour of illuminated

lemperature dependence of dielectric behaviour of illuminate HgI2 crystal.

Appl.Phys.A 42/2, 129-131 (1987) PACS:72.20 72.80 70.90 Martinez J., Fogarassy E., Mesli A., Siffert P.:

Electrical characteristics of laser-annealed silicon diodes.

Appl.Phys.A 42/4, 273-277 (1987) PACS:73.40 Mazzone A.M.:

Ton-beam mixing of multilayered targets. Ballistic effects. in-lon-beam mixing of multilayered targets. Ballistic effects. i Phys. A 42/3, 193-196 (1987) PACS:61.70 66.30 i Y., Morita H., Fujimori H.: Magnetic and electrical properties of several Mn-based amor-

phous alloys, Appl. Phys. A 42/3, 201-204 (1987) PACS: 61.40 75.50 Ochando M.A., Llopis J.:

Electron microscope observations in heat treated MgO:Ni

Appl.Phys.A 42/3, 209-212 (1987) PACS:61.16 81.40 Oliveira O.N., Ferreira G.F.L.: Electron transport in corona charged 12um teflon FEP with

saturable deep traps. Appl.Phys.A 42/3, 213-217 (1987) PACS:72,20J 73.60

Pal B.B., Chakrabarti P: Theoretical characterization of a superlattice avalanche photodiode.

Appl. Phys. A 42/3, 173-177 (1987) PACS: 72.15 72.40 78.55

Pietzsch J., Kamiya T.: Determination of carrier density dependent lifetime and quantum efficiency in semiconductors with a photoluminescence method (application to InGaAsP/InP heterostructures).

Appl.Phys.A 42/2, 91-102 (1987) PACS:78.550 72.20 42.60

Rajainmäki H.: High-resolution positron lifetime spectrometer with BaF2 scintillators.

Appl.Phys.A 42/3, 205-208 (1987) PACS:78,70B 06.60
Rivas J., Iniguez J., Moreno E.:
A simple model for magnetic after-effects in magnetite at room

temperature. Appl. Phys. A 42/2, 133-137 (1987) PACS: 75.60L Roman A .:

Determination of the losses induced by irreversible Barkhausen jumps on the 180 domain wall moving with a sinusoidal motion in the single domain wall model.

Appl.Phys.A 42/4, 291-295 (1987) PACS:75.60E 75.50

Rupp G., Wettling W., Jantz W.: Surface spin waves in anisotropic magnetic multilayers. Appl.Phys.A 42/1, 45-55 (1987) PACS:75.00 75.70 78.35 Schluckebier M.. Pfeiffer Th., Muskalla K., Schmülling W.,

Kamke D.: Heavy-ion-induced desorption of deuterium from titanium I. Ex-

periment and theory.

Appl.Phys.A 42/1, 19-33 (1987) PACS:61.80 66.30 79.20
Schluckebier M., Pfeiffer Th., Muskalla K., Schmülling W.,

Kamke D.: Heavy-ion induced desorption of deuterium from titanium II. In-

hibition by foreign atoms. Kinetic parameters. Appl.Phys.A 42/3, 179-192 (1987) PACS:61.80 66.30 79.20

## SURFACES, INTERFACES, and LAYER STRUCTURES

Adekoya W.O., Muller J.C., Siffert P.: Rapid thermal annealing of electrically-active defects in virgin and implanted silicon.

Appl.Phys.A 42/3, 227-232 (1987) PACS:81.40E 61.80 61.70 71.55
Al-Saleh K.A., Meyer J.D., Saleh N.S.:

XRF induced by PIXE: Comparison with radioisotope XRF.
Appl.Phys.A 42/4, 327-329 (1987) PACS:79.20

General electrical transport properties of polycrystalline multi-layered metallic thin films.
Appl.Phys.A 42/2, 145-148 (1987) PACS:73.40J 73.60

Dalay U., Akpinar S.:

Excess capacitance of ZnO-Au varactors.

Excess capacitance of ZnO-Au varactors.
Appl.Phys.A 42/4, 249-255 (1987) PACS:73.40 85.30 71.20
Finzel H.-U., Schmiedl E., Wißmann P.:
The effect of surface roughness on the resistivity increase of thin metal films during gas adsorption.
Appl.Phys.A 42/1, 87-90 (1987) PACS:73.60
Gupta A.K., Sharma S.K., Venaik A.:
Electrothermographic behaviour of corona charged cellulose acctate and the laucomalachite green mixed system. acetate and the leucomalachite green mixed system.
Appl.Phys.A 42/2, 167-171 (1987) PACS:73.40B
Haegel N.M., Winnacker A.:
Photo production of surface recombination centers in gallium

arsenide.

Appl.Phys.A 42/3, 233-237 (1987) PACS:78.55 72.20

Jin S., Atrens A.: ESCA studies of the structure and composition of the passive

ESCA studies of the structure and composition of the passive film formed on stainless steels by various immersion times in 0.1 M NaCl solution.
Appl.Phys.A 42/2, 149-165 (1987) PACS:68.45 81.60
Kissel J., Krueger F.R.:
Ion formation by impact of fast dust particles and comparison with related techniques.
Appl.Phys.A 42/1, 69-85 (1987) PACS:79.20 07.75
Kunst M., Jaegermann W., Schmeißer D.:
Chemical etching of p-type Si(100) by K2Cr207. A combined in-

vestigation by TRMC and XPS, UPS, and LEED. Appl.Phys.A 42/1, 57-64 (1987) PACS:73.20 72.20 79.60 Mondal M., Bhattacharya S., Ghatak K.P.: On the gate capacitance of MOS structures of Kane-type semiconductors under magnetic quantization.

Appl.Phys.A 42/4, 331-336 (1987) PACS:73.00 85.30

Pamler W .:

Application of Auger electron depth profile analysis to thin film interdiffusion studies. Appl.Phys.A 42/3, 219-226 (1987) PACS:66.30 68.60 79.20

Stulik D.: Secondary ion emission from binary Fe-Cr, Fe-Ni, Cr-Ni and ternary Fe-Cr-Ni alloys: Chemical and physical matrix effects. Appl.Phys.A 42/3, 239-243 (1987) PACS:79.20 07.80 07.75

Yamamoto H .: Resonant tunneling condition and transmission coefficient in a symmetrical one-dimensional rectangular double-barrier system. Appl.Phys.A 42/3, 245-248 (1987) PACS:79.80 74.40

Yang X.-l., Sun X.-d., Zhou N.-f.:
Mössbauer study on surface magnetic properties in magnetic

Appl.Phys.A 42/1, 65-67 (1987) PACS:73.40 76.00 75.00 Zhang J., Neave J.H., Dobson P.J., Joyce B.A.: Effects of diffraction conditions and processes on Rheed intensity oscillations during the MBE growth of GaAs. Appl.Phys.A 42/4, 317-326 (1987) PACS:61.14H